TRANSMISSION OWNER MAJOR PROJECT STATUS UPDATE - DECEMBER 2012

KEY explaining individual columns

Ref No cross refers to the associated map showing the geographical location of projects.

TO gives details of the Transmission Owner Scottish Hydro Electric Transmission plc (SHE Transmission) Scottish Power Transmission (SPT) and National Grid Electricity Transmission (NGET).

Project/Component describes the project.

Area/Transmission Boundary provides the geographical area and boundary zone(s) showing where projects are and the boundaries they will affect where relevant.

Increase in Transfer Capacity or Generation Accommodated shows how much the network capacity is expected to grow allowing greater transfer of electricity across the boundaries and/or allowing new generation to connect.

Current Project Stage: Scoping – Identification of broad need case and consideration of number of design and reinforcement options to solve boundary constraint issues;

Optioneering – TO believes that the need case is firm; design of a number of design options provided for public consultation so that a preferred design solution can be identified;

Design – Designing the preferred solution into greater levels of detail and preparing for the planning process;

Planning – Continuing with public consultation and adjusting the design as required all the way through the planning application process;

Construction – Planning consent has been granted and/or contracts have been awarded and manufacturing underway.

RAG Status (Project Stage) presents an assessment by the TO of any issues affecting the particular project stage and how they impact on the expected completion of that stage. This and the other RAG Status column only apply to projects where the TO believes that the need case is firm and has not moved (although the need case might not yet have been submitted to Ofgem for assessment). So, projects at the earliest 2 stages (scoping and optioneering) do not generally have a RAG rating. Where a project does have a RAG status: Green means that particular project stage is within 6 months of expected completion date; Amber indicates a delay of 6-12 months; and Red a delay of over 12 months.

Issues presents any substantive issues or risks identified by the TO.

Comments provides information on mitigating actions, recent or upcoming milestones, etc.

Earliest completion date refers to the date included in the ENSG 2020 Vision Update Report from Feb 2012. This indicated the earliest date a project could be completed. This is not necessarily the same as the delivery date (see below).

Delivery date is the TO's view of when the work will be completed. Implicit in some of these dates are certain assumptions about planning permission, but these entries do not prejudge those decisions. Also, these entries are not used for regulatory purposes, and might not reflect the dates in the transmission licences: for some projects, the date in this table differs from the existing date in the TO's transmission licence; for others, a date will not be determined and put into the licence until a later date.

RAG Status (against delivery date) is an assessment by the TO of meeting that delivery date: Green indicates within 6 months of required delivery date; Amber indicates a delay of 6-12 months; and Red a delay of over 12 months. Where the TO does not yet have a set view of the delivery date, this entry is blank.

Weblink provides web references for further project information from the TO.

| Ref No | ТО | Project / Component | Area / Transmission Boundary, where appropriate | Increase in Transfer Capacity or generation accommodated (MW) | Current Project Stage: 1. Scoping 2. Optioneering 3. Design 4. Planning 5. Construction | RAG Status (Project Stage) - TO view | Issues (including reasons for slippage, etc.) | Comments (Mitigating actions, etc.) | Earliest completion date (as per 2012 ENSG) | Delivery Date - TO view | RAG Status (Against Delivery Date) - TO view | Weblink (where available) |
|--------|---------------------|--|---|---|--|--|---|--|---|---|---|---|
| 1нр | SHE Transmission | Beauly-Denny 400kV line | Northern Scotland (B1) | 850 | 5. Construction | | Programme under review. Updated status will be included in March 2013 update. | Programme under review. Updated status will be included in March 2013 update. | 2014 Q4 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/Beauly Denny/ |
| 3н | SHE Transmission | Knocknagael 275/132kV Substation | Northern Scotland (B1) | 50 | Complete | Complete | Complete | Complete | 2012 Q2 | 2012 Q2 | Complete | http://www.sse.com/knockn agael/ |
| Зинр | SHE Transmission | Eastern HVDC Link | NE Scotland (B4) to NE England (B6, B7, B7a) | 2000(B4) | 2. Optioneering | See 'RAG Status Notes' | Scope definition under review. There is potential for a multiterminal solution including a link via the SPT territory at Torness. | No additional comments | 2018 Q2 | Subject to assessment of revised scope. | See 'RAG Status Notes' | http://www.sse.com/Eastern HVDClink/ |
| 4н | SHE Transmission | Beauly - Blackhillock - Kintore 275kV Reconductoring | Northern Scotland (B1) | 300 | 5. Construction | | Programme under review. Updated status will be included in March 2013 update. | Programme under review. Updated status will be included in March 2013 update. | 2014 Q4 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/Beauly kintore/ |

| Ref No | ТО | Project / Component | Area / Transmission Boundary, where appropriate | Increase in Transfer Capacity or generation accommodated (MW) | Current Project Stage: 1. Scoping 2. Optioneering 3. Design 4. Planning 5. Construction | RAG Status (Project Stage) - TO view | Issues (including reasons for slippage, etc.) | Comments (Mitigating actions, etc.) | Earliest completion date (as per 2012 ENSG) | Delivery Date - TO view | RAG Status (Against Delivery Date) - TO view | Weblink (where available) |
|--------|---------------------|--|---|---|--|--|---|--|---|---|---|---|
| 7н | SHE Transmission | Beauly - Dounreay - 2nd 275kV circuit | Northern Scotland (B0) | 100 | 5. Construction | | Some contractor delays. | Work continuing through winter period. | 2012 Q4 | Q1 2013 | | http://www.sse.com/dounre aybeauly/ |
| 9н | SHE Transmission | Shetland HVDC Link | Island Link | 600 | 3. Design | | Programme under review. Updated status will be included in March 2013 update. | Programme under review. Updated status will be included in March 2013 update. | 2017 Q4 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/Shetla nd/ |
| 11нр | SHE Transmission | East Coast 400kV Upgrade | Northern Scotland (B2/B4) | TBC | 4. Planning | | Programme under review. Updated status will be included in March 2013 update. | Programme under review. Updated status will be included in March 2013 update. | 2017 Q1 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/ECR400 kV/ |
| 12н | SHE Transmission | Beauly - Mossford 132kV Line & Switch Substation | Northern Scotland (Radial circuit) | 300 | 4. Planning (OHL) 5. Construction (S/stn) | | Line consent received. Attached conditions under assessment. | Programme under review. Updated status will be included in March 2013 update. | 2014 Q4 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/beauly mossford/ |
| 13нр | SHE Transmission | Hunterston - Kintyre 240MVA AC subsea link | | Up to 350MW additional generation | 4. Planning | | Programme under review. Updated status will be included in March 2013 update. | Programme under review. Updated status will be included in March 2013 update. | 2015 Q4 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/Kintyre Hunterston/ |
| 14н | SHE Transmission | Western Isles HVDC Link | Island Link | 450 | 4. Planning | | Programme under review. Updated status will be included in March 2013 update. | Programme under review. Updated status will be included in March 2013 update. | 2015 Q4 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/Wester nlsles/ |
| 17н | SHE Transmission | Orkney 132kV Subsea Link | Island Link | 180 | 3. Design | | Programme under review. Updated status will be included in March 2013 update. | Programme under review. Updated status will be included in March 2013 update. | 2015 Q4 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/Orkney Caithness/ |
| 21н | | Caithness-Moray HVDC Reinforcement | | 600 | 3. Design | | Programme under review. Updated status will be included in March 2013 update. | Programme under review. Updated status will be included in March 2013 update. | 2016 Q4 | Programme under review. Updated status will be included in March 2013 update. | | http://www.sse.com/morayf irthhub/ |
| 1нр | SPT | Beauly-Denny 400kV line | Northern Scotland (B1) to Central Scotland (B4) | 1200 (B4) | 5. Construction | | No significant or reportable issues | Extension of new OHL from SHE Transmission boundary to a new 400kVsubstation at Denny. Some works to complete project will continue beyond the main connection . | 2014 Q4 | 2015 | | http://www.spenergynetwo rks.co.uk/serving_our_cus tomers/beauly_denny.asp ?NavID=1&SubNavID=4 |

| Ref No | то | Project / Component | Area / Transmission Boundary, where appropriate | Increase in Transfer Capacity or generation accommodated (MW) | Current Project Stage: 1. Scoping 2. Optioneering 3. Design 4. Planning 5. Construction | RAG Status (Project Stage) - TO view | Issues (including reasons for slippage, etc.) | Comments (Mitigating actions, etc.) | Earliest completion date (as per 2012 ENSG) | Delivery Date - TO view | RAG Status (Against Delivery Date) - TO view | Weblink (where available) |
|-------------|------|---|---|---|--|--|--|--|---|-------------------------|---|-----------------------------------|
| 1Р | SPT | Incremental Reinforcement: (a) Series Compensation (b)) East-West 400kV Upgrade | Central Scotland (B6) to Northern England (B6) | 1100 (B6) | 5. Construction | | No significant or reportable issues | No additional comments | 2015 | 2015 | | N/A |
| 1пр | SPT | Western HVDC link (TII & RIIO) | Central Scotland (B6) to NW England (B6, B7, B7a) | 2200 (B6) | 5. Construction | | Land acquisition at Hunterston continues to be difficult. | Compulsory purchase process is well underway and Reporter has been appointed. | 2015 | 2016 Q1 | | Western HVDC Link - Welcome |
| 2NP | SPT | Central 400kV Upgrade (Denny – Wishaw) | Northern to Central Scotland (B4), Central Scotland (B5) and Central Scotland to Northern England (B6) | 1700 (B5) | 3. Design | | No significant or reportable issues | Two options are being evaluated known as the East Coast upgrade or the Central 400kV upgrade providing up to 600MW and 1700MW B5 transfer capability increases respectively | 2017 | 2017 | | N/A |
| Зинр | SPT | Eastern HVDC Link | Scotland (B6) to Northern England | 2000(B6) | 2. Optioneering | See 'RAG Status Notes' | No significant or reportable | Development of an Integrated offshore approach to incorporate 4GW wind contracted in Forth for connection 2019-21. | 2018 | 2019 | See 'RAG Status Notes' | N/A |
| 1 NP | NGET | Western HVDC link - HVDC cable and converters | Central Scotland (B6) to NW England (B6, B7, B7a) | 2200 | 5. Construction | | Application for Full Planning consent for the Southern converter station, following a design review by the Design Commission for Wales and there being no statutory objectors, was recommended for approval by Flintshire County Council's Planning Officers but was rejected by Flintshire County Council Planning Committee in October 2012. | permission application is | 2015 | 2016 Q1 | | http://westernhvdclink.co.u k/ |
| 2 NP | NGET | Scotland-England Reinforcement (Series and shunt compensation) | Central Scotland (B6) to Northern England (B6) | 1000 | 5. Construction | | First application of Series Compensation in UK. Sub-Synchronous Resonance risk currently being evaluated. | Preferred supplier to be announced December 2012 | 2015 | 2014 | | N/A |
| Зинр | NGET | Eastern HVDC Link | NE Scotland (B4) to NE England (B6, B7, B7a) | 2000 (B6) 1000 (B7) 700 (B7a) | 2. Optioneering | See 'RAG Status Notes' | No significant or reportable issues | NGET, SPT, and SHET have entered into a joint working agreement and are progressing the development of the project collaboratively. A preferred design option has now been selected. | | 2019 | See 'RAG Status Notes' | N/A |
| 4n | NGET | Western HDVC Link: - Deeside / Connah's Quay substation | | N/A | 5. Construction | | No significant or reportable issues | Construction started on Deeside substation only. | 2015 | 2015 Q2 | | N/A |
| 5м | NGET | Scotland-England Reinforcement (Harker-Hutton reconductoring) | Northern England (B7) | 1400 | 5. Construction | | Volume of work in a single outage season is high | Project in construction and progressing to programme | 2014 | 2013 Q4 | | N/A |

| Ref No | ТО | Project / Component | Area / Transmission Boundary, where appropriate | Increase in Transfer Capacity or generation accommodated (MW) | Current Project Stage: 1. Scoping 2. Optioneering 3. Design 4. Planning 5. Construction | RAG Status (Project Stage) - TO view | Issues (including reasons for slippage, etc.) | Comments (Mitigating actions, etc.) | Earliest completion date (as per 2012 ENSG) | Delivery Date - TO view | RAG Status (Against Delivery Date) - TO view | Weblink (where available) |
|--------|------|--|---|---|--|--|--|--|---|-------------------------|---|--|
| 6n | NGET | North Wales (New 400 kV, Pentir – Wylfa Transmission circuit) | North Wales (NW1) | 2600 | 2. Optioneering | See 'RAG Status Notes' | The Planning Act 2008 requires that this application for development consent be examined by the determining authority (Planning Inspectorate) and determined by the Secretary of State. | Public consultation is underway | 2018 | 2017 Q4 | See 'RAG Status Notes' | http://www.northwalesconn ection.com/ |
| 7n | NGET | North Wales (Second Pentir – Trawsfynydd 400 kV Transmission circuit) | | 3100 | 2. Optioneering | See 'RAG Status Notes' | The Planning Act 2008 requires that this application for development consent be examined by the determining authority (Planning Inspectorate) and determined by the Secretary of State. | | 2016 | 2016 Q2 | See 'RAG Status Notes' | N/A |
| 8и | NGET | North Wales (Deeside – Trawsfynydd series compensation) | North Wales | TBC | 2. Optioneering | See 'RAG Status Notes' | Sub-synchronous Resonance risk not fully evaluated. Lack of land availability at Pentir may lead to extended period of site selection. | Site selection process to commence when ongoing requirements are confirmed in light of new Anglesey- Pembroke HVDC cable | 2015 | 2017 Q2 | See 'RAG Status Notes' | N/A |
| 9и | NGET | North Wales (Reconductor Trawsfynydd – Treuddyn) | North Wales (NW3) | 1500 | 5. Construction | | Winter outages for 2012 stage of work may lead to incomplete work and compressed programme in 2014 to catch up | Full sanction achieved and full PMI released in March 2012 for delivery 2012-14 | 2014 | 2014 Q4 | | N/A |
| 10n | NGET | Wylfa-Pembroke HVDC Link | North Wales (NW1, NW2, NW3, NW4) | 2000-2500 | 1. Scoping | See 'RAG Status Notes' | The delivery date has been pushed back after the business need case reviewed. | Pre-construction works programme has been adjusted to reflect the revised completion year. | 2017 | 2025 Q3 | See 'RAG Status Notes' | N/A |
| 11n | NGET | Central Wales (Mid Wales 400kV substation and Transmission circuit) | Central Wales | 1800 | 4. Planning | | The Planning Act 2008 requires that this application for development consent be examined by the determining authority (Planning Inspectorate) and determined by the Secretary of State. | Development works are continuing in order to meet the connection date of 31 | 2016 | 2017 Q4 | | http://www.midwalesconne ction.com/ |
| 12n | NGET | Humber - Killingholme South New Substation (KISO); and new transmission circuit from KISO to West Burton | NE England (EC1) | 2900 | 2. Optioneering | See 'RAG Status Notes' | The Planning Act 2008 requires that this application for development consent be examined by the determining authority (Planning Inspectorate) and determined by the Secretary of State. Changes in the offshore connection strategy | No additional comments | 2018 | 2019 | See 'RAG Status Notes' | N/A |
| 13n | NGET | East Anglia (i) Reconductoring Bramford-Norwich + (ii) Bramford Substation Reconfiguration | East Anglia (EC5) | 1100 | 5. Construction | | The delivery date has been pushed back after the business need case reviewed. | No additional comments | 2015 | i) 2018 ii) 2016 Q4 | | N/A |
| 14n | NGET | East Anglia (New Bramford – Twinstead 400kV Transmission circuit) | East Anglia (EC5) | 2500 | 4. Planning | | of State. | Consultation feedback published 25th October 2012, detailing preferred | 2018 | 2017 Q4 | | http://www.bramford- twinstead.co.uk/ |
| 15n | NGET | London (Uprate Hackney – Tottenham – Waltham Cross circuit to 400kV+ Pelham Rye House Reconductoring) | London (B14) | 800 | 4. Planning | | | | 2015 | 2016 Q4 | | http://www.northlondonrei nforcement.com/ |

| Ref No | ТО | Project / Component | Area / Transmission Boundary, where appropriate | Increase in Transfer Capacity or generation accommodated (MW) | Current Project Stage: 1. Scoping 2. Optioneering 3. Design 4. Planning 5. Construction | RAG Status (Project Stage) - TO view | Issues (including reasons for slippage, etc.) | Comments (Mitigating actions, etc.) | Earliest completion date (as per 2012 ENSG) | Delivery Date - TO view | RAG Status (Against Delivery Date) - TO view | Weblink (where available) |
|--------|------|--|---|---|--|--|---|---|---|-------------------------|---|-------------------------------------|
| 16N | NGET | South West (Hinkley Point – Seabank and assoc. infra. Works) | SW England (B13) | 2400 | 4. Planning | | The Planning Act 2008 requires that this application for development consent be examined by the determining authority (Planning Inspectorate) and determined by the Secretary of State. | Bridgwater –Seabank route alignment has been announced. Public consultation period on this is 6th November - 18th December. At the end of this phase, NGET will prepare for the Section 42 (S42) formal consultation on the whole project as required under the Planning Act 2008. | 2019 | 2019 | | http://www.hinkleyconnection.co.uk/ |